DOCUMENT RESUME

ED 147 908 CS 501 935

AUTHOR Whiting, Gordon C.
TITLE Cultural Similarities and Differences in the Affective Meanings of Emotions and Sentiments.
PUB DATE Mar 77
NOTE 48p.; Paper presented at the Annual Meeting of the Western Speech Communication Association (Phoenix, Arizona, November 20-23, 1977)

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS Adults; *Affective Behavior; *Cross Cultural Studies; *Cultural Differences; Cultural Factors; Foreign Countries; *Semantic Differential; *Semantics
IDENTIFIERS *Osgood (Charles E)

ABSTRACT

This study examined similarities and differences in the affective meaning of emotions and sentiments, using Osgood's data for American, German, Iranian, Japanese, and Mexican language communities. Analyses indicated that the cultures differed significantly in 30% of their judgments; the fewest divergences were for the most important dimension (evaluation) and the most divergences were for the least important dimension (activity); there were no consistent groupings of cultures; there was (contrary to Osgood's findings) no tendency for the cultures to agree more about negative concepts than about positive; whether a concept is a focus of intracultural conflict is not related to whether it is a focus of intercultural conflict; there are significant differences between subsets of these concepts when grouped into sentiments, emotions, somatic states, and interpersonal orientations; and cultures differ in the meaningfulness of affective concepts. An appendix provides pictorial summaries of selected results. (AA)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED147908

CULTURAL SIMILARITIES AND DIFFERENCES IN THE AFFECTIVE MEANINGS OF EMOTIONS AND SENTIMENTS

Dr. Gordon C. Whiting
Director
Communication Research Center
Brigham Young University
Provo, Utah

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Gordon C. Whiting

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

CS501 935

March 11, 1977

Abstract

This study probed similarities and differences in the affective meaning of emotions and sentiments using data from Osgood's Atlases for American, German, Iranian, Japanese, and Mexican language communities.

The five cultures differed significantly in 30 percent of their judgments. They differed less on the first and most important dimension - the goodness-badness dimension - than on the other two. Concepts like "aggressiveness," "trust," and "romance" showed more differences across cultures than concepts like "happiness," "shame," and "love." No consistent groupings of cultures in terms of similarities were found; that is, Americans were not consistently more similar to any particular culture, Iranians to any particular culture, etc. There was no relationship between likelihood of disagreement and whether a concept was generally negative or positive (e.g. much disagreement about "romance," little disagreement about "love," much disagreement about "aggressiveness," little disagreement about "shame").

Intracultural disagreement for these concepts was uncorrelated with intercultural disagreement. Concepts which fit into a subset of interpersonal orientations showed significantly more intercultural differences than other types of concepts. Mexicans found emotions and sentiments generally less "meaningful" than did other cultures. The study discusses both practical and theoretical implications of the findings.

Cultural Similarities and Differences in the

Affective Meanings of Emotions and Sentiments

It is generally possible to translate the denotative meaning of sentiments or emotions from one language to another. Differences in the appropriateness of particular sentiments and emotions exist, of course, and cultural "display rules" help to inhibit or exacerbate the expression of emotion and sentiment, but linguistic equivalents for basic human emotions and sentiments can ordinarily be found. This tends to be particularly true for languages deriving from a common parent, but even has validity for languages from different language families.

Still, the "flavor" of an emotion or of a sentiment seems to differ. Skilled translators may select "Neid" or "envidia" or "hasad" or 妒 as the best available equivalent in German, Spanish, Farsi, and Japanese of the English "envy," but they may do so with some awareness that the precise emotional impact has been changed in the translation. On the other hand, the notion that no affective similarity exists in the meanings of translated terms clearly goes too far. If asked whether "envy" is a good sentiment to have, English speaking people will tell you it is not. In this, they will concur with answers given by Germans when asked about "Neid," Iranians when asked about "hasad" and so forth.

Despite the intuitive recognition of differences in "flavor" for concepts in the domains of sentiment and emotion, it is very difficult to pin down our intuitions or determine whether others who are also skilled in the same languages share them. A means to accomplish this has been developed by Charles Osgood

and his associates. This paper draws upon their data to provide a description of the differences and similarities in flavor found across a set of sentiments and emotions as they are experienced by five language-cultural groups. The groups are American English, German, Japanese, Iranian Farsi, and Mexican Spanish. Details about data collection are available in Osgood.[1]

After more than twenty-five years of work Osgood has extablished to his satisfaction and to that of most of his critics the universality of three dimensions of affective meaning. In all human groups the first and strongest of these dimensions is that of "goodness-badness." Osgood calls this the "evaluative dimension." It is best typified in English by the relative goodness-badness of an object or concept. It is as if the first affective question we have about an experience or concept is whether it is good or bad, and if so, how much. Some sentiments are well polarized on this dimension; for example, HATE is extremely bad for English speakers, while HAPPINESS is extremely good. On the other hand, some sentiments are less polarized on this dimension - SURPRISE, for example.

The second universal affective dimension is that of potency. There are good things which are strong as well as good things which are weak; likewise there are bad strong things and bad weak things. In most cultures the potency dimension is the second question people implicitly put to concepts and experiences. After the relative goodness of the experience, the relative potency is next most important. SHAME is a slightly impotent emotion for English speakers, SADNESS a bit more impotent, but HAPPINESS relatively potent. Many sentiments and emotions seem ambivalent on this "strength-weakness" dimension in that they can go in either direction. FEAR itself can be strong or weak and can make a person either be strong or weak.

The third dimension, less well represented and less completely universal across languages and cultures, is the activity dimension. Still, once we know whether something is good and whether it is powerful, we next tend to ask whether it is relatively active or inactive. A BIRD is somewhat good, weak, and very active. A WRESTLER is strong and active. A MOUNTAIN is strong and inactive Emotions and sentiments seem to be relatively polarized on the activity dimension, at least when compared to the power dimension. Thus, SADNESS is very inactive while LAUGHTER is very active for English speakers.

Now, the purpose of examining emotions, sentiments and affective experiences as they have been coded in language and quantified in Osgood's Atlases, is to investigate some hypotheses concerning them. One of the hypotheses of most immediate practical importance is the question of the extent of disagreement across cultures in the evaluation of emotions. Are some kinds of terms for emotions more likely to mask communication breakdowns than others? Are some kinds of cultures less similar in their evaluation of emotions than others, and what might this imply?

Another hypothesis to check follows up on Osgood's discovery of a Pollyanna quality to certain aspects of a culture's ratings of concepts. He found cultures tending to see their world through rosecolored glasses, biased toward saying "nice" things. For instance, the data on modes of qualifying human experience suggest that the favorable members of evaluative pairs appear earlier in language acquisition and are more frequently elicited when adults are asked to provide qualifiers for concepts. In all cultures and languages, the probability of favorable qualifiers like "nice," "beautiful," "good" for a concept like WOMAN is a little higher than the probability of their negatives, "nasty," "ugly," "bad." Furthermore, most languages are similar to English in that reversing affixes (or

other linguistic strategies) tend to be more often attached to positive stems than to negative ones, e.g. "unhappy" but not "unsad."[2]

A third hypothesis derived from Osgood's explorations is the claim that although cultures tend to have more concepts they evaluate positively, there is less intercultural disagreement about negatively evaluated concepts than about positively evaluated ones.[3] He found only five concepts - FREEDOM, GIRL, LOVE, MARRIAGE, and MOTHER - that passed his test for intercultural similarity and were predominantly favorably evaluated. In contrast, fifteen concepts passed the test and were predominantly negatively evaluated. Among these fifteen were four we have included as emotions, sentiments, or affective states: ANGER, FEAR, GUILT, and PAIN. We might expect to find, then, that negatively evaluated emotions would occasion less intercultural divergence than positively evaluated emotions.

Since we have sampled thirty emotion/sentiments from five cultures, we might present thirty figures depicting the data. However, the reader's patience, to say nothing of our own, would be taxed by such an approach. Instead, we will present a few cases of the most dissimilar and the most similar emotions.

For this data, any pair-wise comparison of the same dimension (e.g. potency) across two cultures which reaches an absolute difference greater than .9 is significant at the .001level.* Thus, when compared with the Mexican response to SADNESS, (-.5), the Japanese reponse (+.5) is significantly different. With each emotion/sentiment being compared on three dimensions across

* The data in the Atlases are based upon judgments of 40 subjects in each culture. While the Atlases do not give the information needed to calculate exactly the error term for each concept in each culture, Table F of Osgood's Cross-Cultural Universals of Affective Meaning provides the needed standard deviations averaged across 23 cultures. These are the best available basis for making the estimate for the required error term. For the 30 concepts here considered, the one percent level is reached when the difference between cultures is: between .2 and .4 for E, between .3 and .7 for P, and between .3 and .6 for A. When a difference of .9 is found it is significant beyond the .001 level for every concept and dimension.

five cultures, there is the possibility of up to sixty significant differences--fifteen for each dimension, four for each culture within each dimension. However, half of these are merely the obverse of the other half. That is, if the Mexican response is significantly different from the Japanese on the potency dimension of SADNESS, then the Japanese is significantly different from the Mexican. Consequently, for each concept there exists the possibility of up to thirty independent significant differences when we look at five cultures, as we are to do here.

If every culture were different on every emotion on every dimension, we would have 900 total differences, a maximum of 300 on each dimension.

In contrast, we found a total of 274 independent differences that reached the .001 level. They were not equally spread over the three dimensions, however. The evaluative dimension had only 52, the potency dimension 104, and the activity dimension 118.

Whether these totals are regarded as frequencies or, after division by thirty, as means, they indicate on a chi square test or on an F test that the frequency of significant differences is significantly greater for the activity dimension than either of the others and for the potency dimension than the evaluative.* In other words, although cultural differences can be found on all three dimensions across these five cultures for these thirty emotions/sentiments, they are mucy more likely to occur for the activity dimension, next most likely for the potency dimension, and least likely for the evaluative dimension. In percentage terms, 17 percent of the evaluative contrasts, 34 percent of the potency contrasts, and 39 percent of the activity contrasts are significant at the .001 level or better.

---

*The chi square on a goodness of fit test is 42.83 (2 df) while the F on an analysis of variance is 61.44 with 2 and 217 df.

These cultures find more agreement about the relative goodness-badness of emotions and sentiments than they do about their potency, and more agreement on that issue, than on the issue of activity. Of course, this order is the best we could hope for, if disagreement is necessary, since the evaluative is the most important dimension, the potency the next most important, and the activity the third.

Do the thirty emotions/sentiments differ significantly in the extent to which their average EPA scores differ across cultures? They do indeed. The most divergent are AGGRESSIVENESS, TRUST, and ROMANCE, which show respectively seventeen, sixteen, and fourteen significant differences out of a maximum possible thirty. The least diverse are HAPPINESS, SHAME, and LOVE, which have only four, four, and three significant differences out of the possible thirty. The data for each emotion/sentiment are given in Table 1. The six most and least divergent are depicted graphically in Figures 1-6 in the appendix.

Evaluative Contrasts

AGGRESSIVENESS and PRIDE, both largely negative concepts, were the only ones in the sample that showed significant disagreement not only of degree but also of kind on the evaluative dimension. Americans regarded AGGRESSIVENESS as somewhat good (1.0 in raw score terms, .1 in z-score terms) while all the other cultures regarded it in varying degrees as bad, both in raw score and in z-score terms. Only the Japanese were not significantly different from the Americans in their judgment of the goodness/badness of AGGRESSIVENESS.

On PRIDE the Americans and Japanese are again pitted against the other three cultures when it comes to judging the concept's goodness. The former

two cultures see it as about .8 good (in z-score terms) and the remaining three see it as about -1.0 bad (in z-score terms).

PASSION, a more ambiguous concept but less ambiguous on the average than PRIDE is unusual in having five of its seven significant contrasts on the evaluative dimension.

In raw score terms the differences are all matters of degree, with means ranging from the Iranian .0 upward to the American and Japanese 1.3. In z-score terms, the basis for Table 1, matters are complex enough to merit presentation with the data:

Iranian	Mexican	German	American	Japanese
-1.0	-.4	.1	.4	1.0

Means with common underlining are not significantly different.

The ambiguity of PASSION may contribute to these results on the evaluative dimension. Still, the fact that its ambiguity is not the highest in our set of thirty concepts (it is tied with two other emotions for seventh place) and that similar numbers of conflicting judgments do not frequently occur on the other two dimensions makes PASSION a puzzling concept to account for interculturally.

As can be seen in Table 1, JUSTICE, PLEASURE, and TRUST each generate four significant contrasts on the evaluative dimension and an equally large number on the other dimensions most of the time. With JUSTICE, the outcome is almost entirely a matter of degree. On the raw scores it is only a matter of degree, but on the z-scores the Mexican group is insufficiently enamored of JUSTICE and gives it a -.2. The Japanese are the more enthused about it, with a z-score of 1.6.

Table 1

Emotions/Sentiments/Affective Experiences

Ordered by Intercultural Divergence

	Number of Significant Intercultural Differences			
Concept	Evaluative	Potency	Activity	Total
Aggressiveness	6	5	6	17
Trust	4	7	5	16
Romance	1	7	6	14
Anger	2	5	6	13
Determination	1	7	5	13
Pride	6	6	1	13
Hate	0	6	6	12
Justice	4	4	4	12
Kindness	1	5	6	12
Sympathy	2	4	6	12
Pleasure	4	4	3	11
Envy	0	4	6	10
Pain	0	4	6	10
Respect	3	2	5	10
Devotion	3	4	2	9
Laughter	3	1	5	9
Surprise	4	0	5	9
Courage	0	3	4	7
Guilt	0	6	1	7
Passion	5	1	1	7
Fear	0	1	5	6
Greed	0	2	4	6
Honor	0	3	3	6
Hope	0	0	6	6
Sadness	0	4	2	6
Contempt	2	1	2	5
Friendship	0	0	5	5
Happiness	1	2	1	4
Shame	0	4	0	4
Love	0	2	1	3
TOTAL	52	104	118	274

This time the Americans are in the middle with .7, significantly less than the Japanese and more than the Mexicans. The Mexicans differ significantly from each of the other groups, however, and this is the most important finding for this concept.

PLEASURE finds the Iranians and Mexicans in agreement, each giving it only a .3 rating, and significantly different from the Germans and Japanese, who see it as very positive with 1.4 and 1.6 respectively. Again, Americans are in the middle, failing to differ significantly from either those cultural groups above or below them in the intensity of their evaluations. In both raw score and z-score terms all groups see PLEASURE as positive, so the obtained differences are merely matters of degree.

TRUST, overall the second most divergent concept in our sample, pits the Iranians and the Mexicans against the other three cultures. Americans, Germans, and Japanese averaged together think TRUST good at the 1.2 level while Mexicans and Itanians see it as only .4 good. The possibility that this outcome reflects differences in relative economic development is tempting here, especially since trust has been the subject of theoretical speculation on its role in the transition from a traditional to a modern society.

Space limitations prevent examination of concepts with fewer significant contrasts on the evaluative dimension.

Potency Contrasts

On the potency dimension, TRUST, DETERMINATION and ROMANCE each generate seven significant contrasts. The Germans differ from all the others in

regarding ROMANCE as -1.4 impotent. At the other extreme, the Americans see it as 1.3 potent. The Iranians and Mexicans tend to agree with the Americans while the Japanese locate themselves equidistant between the two extremes at -.1.

DETERMINATION is purely a matter of degree. The Japanese give it a 2.4 on potency, the Americans and Iranians are a little more moderate at 1.3 and 1.2, while the Germans and Mexicans see it as a .4 or .2 concept. In the absence of the extreme Japanese judgment, it would register only the contrast between the Mexicans and the Americans and Iranians.

TRUST again pits the Japanese with 1.8 against most of the sample, who are more moderate in their judgment of its potency. The Iranians differ as well from all others in giving it a -.4. TRUST among them does not lead to strength, as it does among the Japanese. The Germans, Americans, and Mexicans do not differ among themselves on this concept's potency, although they differ from each of the other more extreme cultures.

Six significant differences in potency are found for HATE, GUILT, and PRIDE. Mexicans and Iranians see GUILT as impotent (-.8 when averaged together) whereas the other three see it as potent (.6 when averaged together.)

Precisely the same pattern occurs for HATE, with Mexicans and Iranians seeing it as impotent (-.7 averaged together) and the other three seeing it as potent (.6 averaged together.)

For PRIDE, the cultures differ only in degree, all of them seeing it as potent. The Americans and Japanese think it is substantially so (1.4 when averaged together) while the other three think it only moderately so, all three having .4 judgment of it.

Space does not permit analysis of all the other emotions/sentiments which score high on intercultural differences in potency. We can notice some which present clear and interesting pictures, however. SADNESS is seen as weak, -.8 average, by all but the Japanese, who regard it as .5 strong! SHAME is -2.0 weak for Iranians and only -.3 weak for the other cultures, on the average. Mexicans regard ANGER as -1.0 while the others give it positive potency scores ranging from .1 to 1.2. Germans see ENVY as slightly strong, while the others regard it as weak ranging from -.3 to -1.5. Germans also differ from the balance of the sample in regarding HONOR as lower in power, .4, while the others give it an average score of 1.4. On PAIN Germans are higher than most of the others with 1.3 while the Americans come in with -.4 and the Mexicans and Iranians with .1 each. The Japanese regard JUSTICE as much more powerful than the balance of the sample, 2.3 against an average of 1.0. Most of the other potency contrasts are more complex with the cultures spreading over a continuum rather than clearly grouped.

Activity Contrasts

Although there were more activity contrasts than any other type, no single emotion/sentiment showed more than six, a level reached by nine of them: AGGRESSIVENESS, ANGER, ENVY, HATE, HOPE, KINDNESS, PAIN, ROMANCE, and SYMPATHY. In the case of four of these, the major break is between the relatively modern and relatively less developed nations--Americans, Germans, and Japanese, versus Iranians and Mexicans. Thus, on AGGRESSIVENESS the modern group has an average of 1.7 while the less modern group has an average of -.3; on ENVY the difference is .0 versus -1.4; on KINDNESS it is -.2 versus 1.1; on ANGER it

is .9 versus -.4. ANGER has an additional contrast between the German group and all the others, however. The Germans see it as 1.5 active.

Germans have divergent views on several of the remaining five concepts. They are the only group to regard HATE as active, 1.0 against an average of -.8 for the other four. On ROMANCE they see it as -2.0 inactive while the others see it as .9 active, the Iraninans being most extremely different with 1.6 active. Germans and Americans are the two cultures which regard SYMPATHY as inactive with a -.8 score against scores ranging from .0 to 1.0 for the other three. The Germans and Japanese regard PAIN as active with .8 while the others see it as inactive with a -.8 average.

Intercultural Agreement in Relation to Other Variables

Positive versus Negative Concepts

Are these five cultures more in agreement about positive than about negative emotions/sentiments? Osgood's previous analysis had led us to expect this outcome. However, on a chi square test the 18 positive emotions had a total of 165 differences (summed across the three dimensions) whereas the frequency under the null hypothesis should have been 164.4. Results for the negative emotions were similarly close. Clearly, the outcome does not mirror Osgood's finding. When we consider only significant differences in each dimension separately, we find no significant difference between positive and negative emotions/sentiments in the frequency of evaluative differences, potency differences, or activity differences. As can be seen by perusal of Table 1, favorable and unfavorable concepts are interspersed freely from top to bottom. This impression is confirmed by the

statistical analyses just reported. We can conclude that for these five cultures, the suggestion that negative concepts in this subject matter area might be interculturally agreed upon is not supported.

Intracultural Conflict

Is intercultural disagreement related to intracultural disagreement? In other words, do the frequency of disagreements in affective meaning across cultures mirror the frequency of disagreement within cultures? The Atlases provide a measure of "Cultural Instability" in both absolute and normalized form.* For the thirty concepts we are examining raw cultural instability scores range from .76 for PRIDE and SHAME to .30 for LAUGHTER. The maximum possible is 3.0. The normalized cultural instability scores range from .82 for PRIDE to -1.38 for LAUGHTER. The fact that 18 out of 30 normalized scores are negative and go farther in that direction than in the positive direction suggest that, as a group, this set of concepts is less prone to cultural instability than the typical concept in the pool.

The five cultures do differ significantly in the average instability score they assign to these thirty concepts, and this is true for both the raw and the normalized scores (the F for the raw scores is 8.85 and for the normalized 5.14, each with 4 and 116 df). The means are given below. They have been ordered by the magnitude of the normalized scores.

---

*High cultural instability scores are generated by subjects tending to check extremes on the scales and showing little agreement about which end of a particular scale applies to the concept being rated. Low scores can occur either because extremes are avoided or because agreement exists as to the end of the scale. The score thus combines unfamiliarity with the concept with lack of strong shared stereotypes concerning it.

	Mexican Spanish	Iranian Farsi	American English	Japanese	German
Normalized	.21	.08	-.35	-.49	-.69
Raw	.57	.70	.46	.55	.44

The two sets of scores are correlated at .71. The normalized data suggest that the Mexicans and Iranians find these concepts a little above average in cultural instability while the other three cultures find them somewhat below average. If raw scores are considered, three groupings emerge: the Iranians by themselves, the Mexicans and Japanese together, and the Germans and Americans together.

But, to the issue at hand, is intracultural conflict related to the number of intercultural differences? These data clearly indicate it is not. The correlation between the number of intercultural significant differences and the normalized cultural instability score for each concept is only -.04 and on the raw data it is -.01. The number of significant contrasts with other cultures bears no relationship to the degree of cultural instability suffered by the concept within cultures.

Finer Groupings of Concepts

Perhaps the inability to discover some order or sense to the number of contrasts interculturally relates to mixing apples and oranges in the thirty concepts selected. If we move to finer categories we may discover a pattern.

Within the thirty concepts we've been analyzing there are five which pretty clearly constitute somatic states and behaviors: LAUGHTER, PASSION, PAIN, PLEASURE, and SURPRISE. Sometimes the latter concept is regarded as an emotion, but for now it seems to fit better in the somatic states category. Of course, emotions reflect somatic states, so perhaps the emotion category should be

expanded to include the above. For the moment we restrict it to the following seven concepts: ANGER, ENVY, FEAR, HAPPINESS, HATE, LOVE, and SADNESS. Of course, several of these usually implicate other people and so bleed into the next category of ten interpersonal orientations: AGGRESSIVENESS, CONTEMPT, DETERMINATION, FRIENDSHIP, KINDNESS, PRIDE, RESPECT, ROMANCE, SYMPATHY, and TRUST. Again, some of the above have qualities of sentiments, even as most sentiments have a distinct social flavor to them. Nevertheless, for the moment consider the following eight as sentiments: COURAGE, DEVOTION, GREED, GUILT, HONOR, HOPE, JUSTICE, and SHAME.

Does a division along the lines sketched correspond in any way to the frequency with which intercultural differences occur? The mean number of differences by category are given below.

Concept Type	Number of Concepts	Mean Number of Significant Intercultural Differences
Sentiments	8	7.12
Emotions	7	7.71
Somatic States	5	9.2
Interpersonal Orientations	10	11.7

Analysis of variance indicates these means are significantly different at beyond the .01 level ($F = 18.76$ with 3 and 26 df)*. Within the Interpersonal Orientations category only two concepts, CONTEMPT and FRIENDSHIP, register

*Readers who object to the use of the number of independent significant differences as a score in analysis of variance will be relieved to know that a goodness-of-fit chi square test on the same data also reaches significance: 12.19 with 3 df.

less than ten significant intercultural differences. The Somatic States show the least variance ranging only from 11 for PLEASURE to 7 for PASSION. The Emotions and Sentiments categories tend to range the gamut of possibilities.

These findings are thrown somewhat into doubt by the fuzziness of the divisions among the categories. Is PRIDE more of a sentiment than it is an interpersonal orientation? Is COURAGE an interpersonal orientation and not a sentiment? If we collapsed to only two subcategories it would seem most defensible to group emotions with somatic states and sentiments with interpersonal orientations. In that event, the means become 8 and 8.33 for the two groups respectively and analysis of variance, not surprisingly, shows no difference. If we regarded the grouping of emotions and somatic states as more defensible (on theoretical grounds, not after looking at the outcome above), our statistical test increases in impressiveness ($F = 28.30$ with 2 and 27 df).*

Groping in the dark as we are, it is perhaps best to clutch this slender reed and hazard the guess that cultural differences are most to be expected when

---

*When the data were being entered on cards from the Atlases the thirty concepts were grouped into three subgroups of ten each. The subgroups were titled emotions, interpersonal orientations, and sentiments. The artificial, and as it turned out unnecessary constraint of having ten in each category made exact comparison with the breakdown described above impossible. Still, only four concepts, ENVY, LOVE, PRIDE, and DETERMINATION changed categories between the two codings, done a month apart. Given the unequal Ns allowed in the second coding, at least two would have had to have shifted. This suggests that the reliability of the subgroups may not be as poor as first glance suggests. Furthermore, redoing the analysis with the original subgroups produced a significant F (12.72 with 2 and 27 df) and the patterns of the means remains the same. There may be substance to the notion that judgments of sentiments are more interculturally similar than judgments of emotions, and judgments of both of these more similar than judgments of interpersonal orientations.

we encounter interpersonal orientations. Osgood, Miller, and others have often noticed that language seems to be constructed principally for humans to use in talking about humans.[4] Perhaps the existence of relatively large cultural divergence on concepts such as AGGRESSIVENESS, DETERMINATION, KINDNESS, PRIDE, RESPECT, ROMANCE, SYMPATHY, and TRUST is warranted by this observation. Still, this interpretation has a post-hoc flavor to it and the above finding must largely sojourn as a significant difference in search of a rationale. Readers who wish to try their own hand at coming up with defensible groupings of the thirty concepts can test the result by taking the data from Table 1.

Differences Among Cultures

Although slight differences among cultures appeared in the frequency with which they differed from other cultures on these thirty concepts, the differences do not begin to approach significance. The possibility of differences within each of the three affective dimensions was also checked to no avail. The possibility that the cultures differed in the number of times they were different from all the other four cultures, or the number of times they were in the minority was checked without success. And the number of times they failed to differ was also insignificantly different.

The upshot is that, although many differences are found across these five cultures in the way they judge emotions and sentiments, one cannot reliably claim any culture or cluster of cultures to be more similar to any other. Sometimes the Japanese cluster with the West, sometimes with the Iranians. Sometimes Germany and America are in the same camp, sometimes not. Sometimes Americans

and Mexicans are together, sometimes not. Perhaps the discussion of differences among the thirty concepts already left this impression. It is confirmed by statistical analysis.

Cultural Differences in the Meaningfulness of Sentiments and Emotions

Osgood's Atlases provide a score called "Distance from Origin." It constitutes a measure of "meaningfulness" in the sense that it increases in magnitude to the extent that a particular concept is unambiguously polarized on all three dimensions of affective meaning. If, on the other hand, the judges representing the culture give a particular concept neutral ratings on all three dimensions, they tell us that, in terms of hypothetical semantic space, this concept is located at the point of origin or the point of "meaninglessness."

Among emotions SURPRISE come close to meaningless for all five cultures. For the Mexicans, for instance, its normalized ratings on the EPA scale are .2, .3, and .2 respectively. This generates a very small cube. The distance from the origin is measured as the distance in three dimensional space from the origin of this cube to the corner farthest from the origin.* It figures out to be a distance of .41 for SURPRISE. Signs are eliminated in the process of obtaining this distance, and since the maximum length of a leg is $\pm$ 3.0, the maximum possible distance is 5.2.

Osgood provides this meaningfulness measure based only on raw scores. When his distance data are submitted to analysis of variance in a 5 by 30

---

*Mathematically, the problem is simply one of finding the hypotenuse of the triangle formed when two of the dimensions are regarded as legs and using that hypotenuse as one of the legs of the triangle formed in a third dimension, along with the remaining dimension as the other leg. The formula, then, is $\sqrt{\sqrt{E^2 + P^2}^2 + A^2}$ which reduces to $\sqrt{E^2 + P^2 + A^2}$. For the data given above on the Mexican concept of SURPRISE this amounts to $\sqrt{.04 + .09 + .04} = \sqrt{.17} = .41$. So .41 is the distance from the origin for the normalized data on the Mexican concept of SURPRISE.

design, the difference in meaningfulness among cultures reaches significance at the .01 level ($F = 13.26$ with 4 and 116 df). The means for the five cultures were:

Mexican Spanish	Japanese	American English	Iranian Farsi	German
1.64	1.88	2.23	2.26	2.46

Pretty clearly, the meaningfulness of emotions for Americans and Iranians is not significantly different, while the means for the other three lie far enough apart to suggest significant pair-wise differences. Post hoc, it comes as a surprise that Spanish, a romance language, should show the lowest meaningfulness score. On the other hand, after the fact justifications for virtually any order could be imagined, so the interpretation of this outcome must be laid aside for now. The relative meaningfulness of the 30 emotions, when summed across the five cultures, also reached beyond the .01 level of significance ($F = 13.43$ with 29 and 116 df). Estimated means for the emotions are listed on the following page.

The average standard deviation of these estimated means is .22. The clusters of emotions shown above are organized with breaks, much as a professor breaks down test scores and assigns grades. The largest break is between the last two emotions, SHAME and PRIDE.

The order of the emotions suggests a bias in the meaningfulness scores for positively evaluated emotions. That is, emotions tend to be more meaningful, more extremely located in semantic space, when they are unambiguously

good. They become less meaningful as they become either ambiguous (e.g. SURPRISE, PRIDE, PASSION) or negative (e.g. SHAME, CONTEMPT, FEAR). In part, this supports the "Pollyanna hypothesis." Cultures seem to be more polarized about favorable emotions/sentiments than they are about the unfavorable.

In the above data the strength of the Pollyanna hypothesis is really quite surprising. The first fourteen emotions are all unambiguously good for all five cultures used in this analysis. The first disagreement encountered occurs for AGGRESSIVENESS, which Americans think is good while the other four cultures regard it as bad. HATE, with a rank of 18, is the first clearly negative emotion, and only two clearly positive emotions, DETERMINATION and DEVOTION, with ranks of 17 and 22, are found in bottom fifteen emotions. They are there because the Mexicans do not find DETERMINATION very meaningful and the Japanese do not find DEVOTION very meaningful. Without these exceptions, both concepts would have been in the upper half.

All the above analyses are based on raw scores. Differences in cultural propensity to use the scales in a particular way are thus confounded with the results. On the other hand, this itself may reflect the meaningfulness of these emotional concepts. Considerations of this ilk may lie behind the fact that Osgood provides no normalized "distance from origin scores." These can be calculated from the normalized scores he does provide, however.

The differences among cultures on this analysis are significant at the .02 level ($F = 2.95$ with 4 and 116 df) and differences among the concepts significant at beyond the .01 level ($F = 5.15$ with 29 and 116 df). The means for the cultures are given on the following page.

Table 2

MEANS ON RAW MEANINGFULNESS

POOLING DATA FROM FIVE CULTURES

FRIENDSHIP	2.74	DETERMINATION	2.08
LOVE	2.72	HATE	2.04
KINDNESS	2.70	SADNESS	1.96
HAPPINESS	2.70	GUILT	1.86
		ANGER	1.82
ROMANCE	2.60	ENVY	1.78
COURAGE	2.56	DEVOTION	1.78
LAUGHTER	2.50	GREED	1.78
		FEAR	1.70
JUSTICE	2.36	PASSION	1.66
HONOR	2.32	CONTEMPT	1.66
TRUST	2.28		
PLEASURE	2.22	SURPRISE	1.54
RESPECT	2.20	PRIDE	1.52
HOPE	2.20		
SYMPATHY	2.16	SHAME	1.16
AGGRESSIVENESS	2.14		
PAIN	2.14		

Mexican Spanish	American English	Iranian Farsi	German	Japanese
1.66	1.81	1.84	1.92	2.09

Unaccountably, the Japanese have switched from the next to smallest meaningfulness mean to the largest. Otherwise, the order of the means, if not the precise magnitude, has remained the same as it was for the raw data. Since the normalization of the thirty concepts is based on the total pool for each culture of 620 concepts, these results are conceivable. They suggest that in the Japanese but not the other cultures normalization tends to increase the overall polarization of these thirty concepts relative to the balance of the concepts rated.* If normalized data is more appropriate for intercultural comparisons, as we believe they are, then the Japanese are not less prone than the other cultures to regard emotions/sentiments as "meaningful." That place falls to the Mexicans.

The differences among concepts are listed in Table 3, again with breaks similar to those constructed by a professor in assigning grades. The standard deviation of a mean averages .23 and the reader can make his own pairwise comparisons at the confidence level he prefers. The largest gap in the order is between SADNESS and what follows.

This time a clear relationship between meaningfulness and the negative quality of a concept leaps out of the table. If one excludes PRIDE, all the negative emotions occur within the first twelve ranks, and COURAGE is the only positive emotion found there. A simple analysis of variance confirms intuition on this matter. The F between negative and positive emotions is 35.53

*The possibility of a clerical error was checked and rejected.

Table 3

MEANS ON NORMALIZED MEANINGFULNESS

POOLING DATA FROM FIVE CULTURES

Concept	Mean	Concept	Mean
SADNESS	2.98	JUSTICE	1.64
		HONOR	1.56
PAIN	2.60		
HATE	2.58	TRUST	1.46
ENVY	2.54	RESPECT	1.46
		DETERMINATION	1.45
GUILT	2.43	PLEASURE	1.44
AGGRESSIVENESS	2.42	SYMPATHY	1.39
		HOPE	1.36
CONTEMPT	2.33	PRIDE	1.31
GREED	2.27		
ANGER	2.25	PASSION	1.15
FEAR	2.24	DEVOTION	1.08
		SURPRISE	1.01
COURAGE	1.99		
SHAME	1.95		
LAUGHTER	1.94		
ROMANCE	1.91		
FRIENDSHIP	1.88		
LOVE	1.82		
KINDNESS	1.77		
HAPPINESS	1.73		

The meaningfulness score is derived by calculating the distance from the origin to the farthest corner of the cube generated by the three dimensions of evaluation, potency, and activity. The standard error of the mean for the above data is .23. Any pairwise difference larger than .92 is significant at the .05 level of confidence.

with 1 and 28 df, significant beyond the .01 level. The correlation between the average evaluative score and the average meaningfulness score is -.76.* The more negative an emotion/sentiment the more polarized it tends to be when its performance is averaged across these cultures.

The correlation between the normalized meaningfulness score and the meaningfulness score based on raw data is only -.03, essentially unrelated. Consequently, although both sets are related to the evaluative dimension, one positively and one negatively, they are not related to each other. There has been enough internal revision of the order of concepts within each set to wipe out the possibility of a strong negative relationship between them.

---

*Both scores are based on normalized data derived from normalization across 620 concepts independently for culture.

Discussion and Summary

What have we found in this analysis? First, we discovered that these five cultures differ considerably in their affective judgments of the thirty concepts we selected. On the average, 30 percent of the 900 possible pairwise comparisons reached the .01 level of significance. If one takes a positive view, that means 70 percent of the possible comparisons did not reach significance; these five cultures have more in common than in dispute on emotions/sentiments.

Second, we found the fewest significant divergences on the most important dimension, the evaluative, and the most significant divergences on the least important, the activity dimension.

Third, we uncovered the concepts that suffer the greatest and least number of significant differences. One might suppose that concepts like AGGRESSIVENESS, TRUST, and ROMANCE will be more troublesome in intercultural interactions than HAPPINESS, SHAME, and LOVE. We will discuss an important caveat to that inference in a moment, but at first glance we can let it stand.

Fourth, we found no particular cluster of cultures or even any important differences among cultures in the frequency with which they stood in conflict with the other cultures included in the sample. This suggests that when it comes to the affective meaning of affective concepts, intuitions about the relative similarity of cultures are untrustworthy. Mexico is just across the Texas border from the United States and Iran a long way away, but that does not mean that Mexican Spanish speakers tend to agree more frequently with American English speakers than either group does with Iranian Farsi speakers.

All the groups but the Japanese are from the Indoeuropean language, but that does not set up a Japanese versus the balance of the sample contrast any more frequently than chance would predict. Iran and Mexico are the least developed pair of the five, and sometimes they see affective concepts similarly, but sometimes they pair with other individual cultures.

Fifth, contrary to what Osgood's findings had led us to anticipate, we found no discernable tendency for these five cultures to agree more about negative concepts than about positive. Perhaps this outcome reflects the approach taken here, perhaps it stems from the selection of only five instead of fifteen cultures, as he used. But perhaps it reflects the nature of this subset of the concepts.

Sixth, contrary to what one might expect, whether a concept is the focus of intracultural conflict is not related to whether it is the focus of intercultural conflict. The two problems appear to be unrelated, at least for these cultures. And, perhaps surprisingly, affective concepts are a little below average in most of the cultures in the degree of intracultural conflict they suffer.

Seventh, we do find significant differences between subsets of these concepts when grouped into sentiments, emotions, somatic states, and interpersonal orientations. The latter group is most apt to include concepts with frequent intercultural differences. This finding is a bit tenuous, pending as it does evidence that the four subsets can be reliably distinguished. And its meaning - what brings it about and what consequences it portends - is uncertain. Still, it is a solid bit of ground in a sea of uncertainty and for that reason alone worth taking note of.

Eighth, cultures and concepts differ in the meaningfulness of affective concepts. In particular, we can be reasonably sure that the Mexican Spanish speakers find them less meaningful than the other cultures. Osgood's Pollyanna hypothesis fits the order of the concepts rather nicely. On the raw scores, good concepts are more meaningful than bad. However, when the normalized data are analyzed, the reverse situation turns up! Bad concepts are most meaningful. The two types of concepts do not completely retain their coherence as subgroups so their correlation is negligible. Which is the most sensible approach to the data, through raw scores or through normalized scores? This is a conundrum.

Can we be assured that AGGRESSIVENESS, say, with 17 intercultural differences, will give more troubles than LOVE with 3 intercultural differences when the concepts are used interculturally? The possibility that Americans' favorable evaluation of AGGRESSIVENESS will be inexplicable to people from other cultures, while talk about LOVE will meet with predicable responses on all sides is an attractive hypothesis. That it needs empirical testing arises from Triandis' reflections about the relative ease of adjusting to large differences and the difficulty in coping with small, subtle differences.[5] Triandis points out that if differences in cultural orientation are substantial, they will also be obvious. The foreigner can spot them, investigate their meaning, and discover what is going on. With subtle differences, matters are likely to remain out of awareness, and even if they come into awareness a heavy burden of <u>unlearning</u> falls on the foreigner. Considerations of this kind suggest that precisely those emotions/sentiments where relatively few significant differences were

found are candidates for the most treacherous kinds of intercultural problems. On the other hand, it may be that communication utilizing these sorts of abstract concepts, which refer to largely unobservable states or orientations, is already so subtle and abstruse that the greatest problems will arise where the greatest divergence of affective meaning lurks. Only further, difficult empirical exploration can decide the issue.

What is to be done with the contrary results on meaningfulness? One approach is to reject the "meaningfulness" of the measure itself or at least to reject associating the mathematical distance from the origin with meaningfulness. If one regards "meaningfulness" as essentially another name for "importance" or "centrality" in a person's self-concept, belief system, or image of the world, then the leap from the mathematics of the measure Osgood proposes to the notion of centrality and importance is hazardous at best. But regardless of what the variable is called, we still have to cope with the fact that when the scores are normalized the small distances from the origin tend to become large and the large small. And we must contend with the fact that in both instances a relationship to the evaluative dimension is present.

One possible way out of this box is to claim that response biases, including the Pollyanna tendency itself, tend to maximize the size of the solids generated by good concepts when raw data are considered. When affective concepts are normalized in terms of the pool of all concepts, however, the good affective concepts tend to shrink in size while the bad ones tend to expand. It is as if the raw data were like a partially inflated balloon which shifts its bulbous end to the tail when it is squeezed. Among all bad concepts in the pool, in other words,

SADNESS, PAIN, HATE, and ENVY are toward the outer limit of badness, while FRIENDSHIP, LOVE, KINDNESS, and HAPPINESS are only a bit more than middling in goodness, compared to all that is available. The fact that Osgood found more positively evaluated concepts than negative within each culture tends to support this interpretation.

Yet in a sense, this is merely a restatement of what the two sets of data amount to when they are juxtaposed. Could the normalized meaningfulness data reflect the expectation derived from Osgood's findings of greater agreement on negative than on positive concepts? Is meaningfulness really a measure of stereotypy? Is it yet something else? The interpretation of this strange outcome invites pondering and reflection.

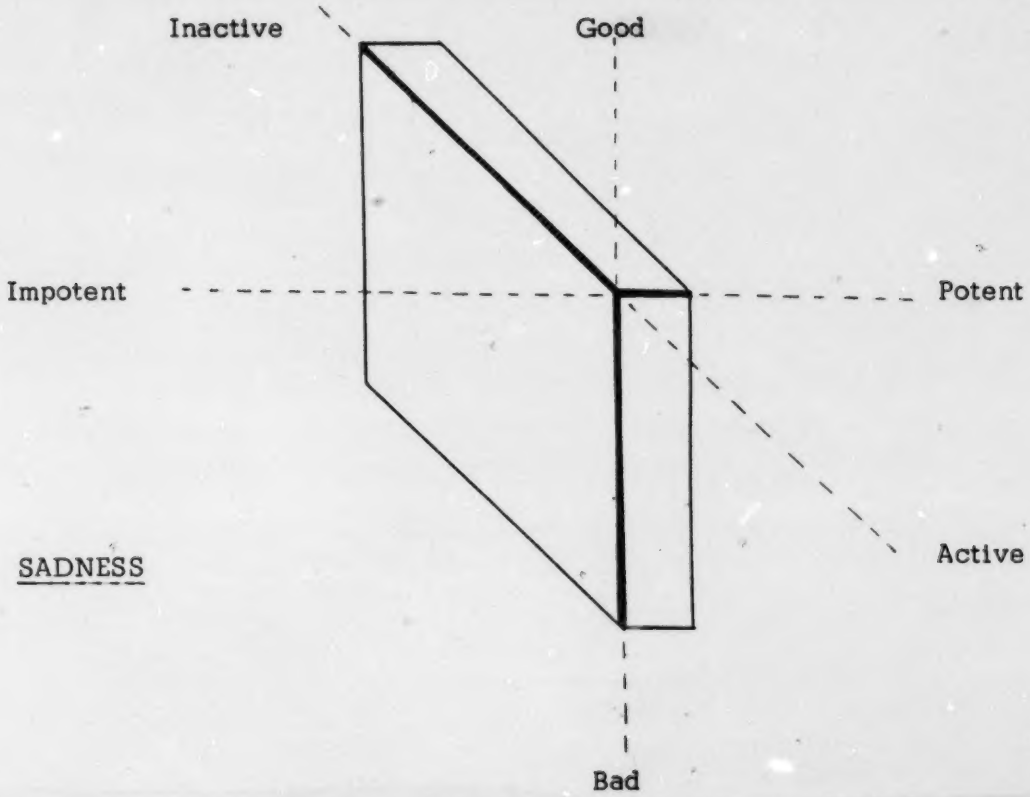
APPENDIX

To facilitate comprehension the data have sometimes been translated into pictorial form in this paper. The goodness, potency, and activity of each emotion or sentiment for each language-culture group are represented by a solid. The verticle dimension of the solid represents its relative goodness or badness. If the solid extends upward from the reference line the sentiment is good. If it extends downward the sentiment is bad. The distance up or down represents, in normalized terms, the amount of goodness or badness associated with the sentiment.

The left-right dimension represents potency. If the solid extends to the right of the reference line the sentiment is relatively potent. If it extends to the left it is relatively impotent. Again, the degree of strength or weakness is reflected in a normalized fashion by the degree of the extension.

Finally, the activity of the emotion or sentiment is reflected in whether or not the solid seems to advance out of the paper toward the reader or recede into the paper. If it advances it is active; if it recedes it is passive. The amount of advance or recession reflects the degree of activity or passivity.

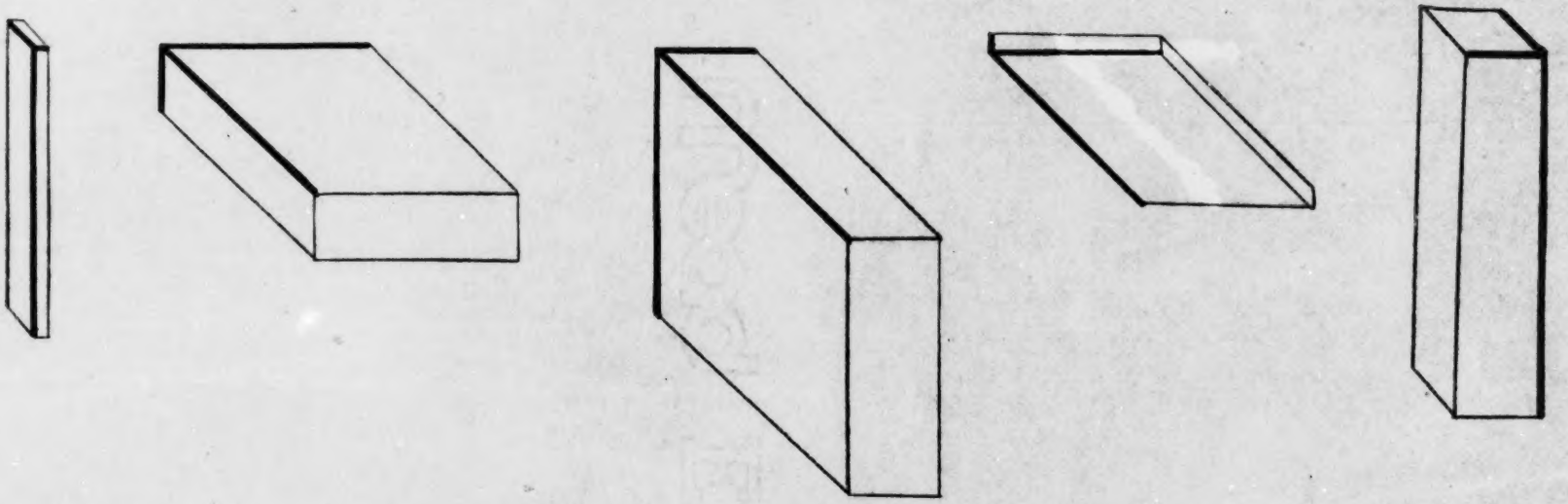
To assure understanding, consider the following example. It is the solid generated by the Japanese response to the concept SADNESS (in Japanese of course). The heavy lines reflect the reference dimensions and the light lines the balance of the solid figure. Where the heavy lines meet is the point of origin or neutrality. The figure should be read as shown on the following page.



The existence of these three universal dimensions and of data for sentiments and emotions in the "Atlases of Affective Meaning" Osgood has prepared provide an opportunity to check for intercultural similarities and differences.

For the Japanese SADNESS is quite bad since the verticle line runs quite a way down from the point of origin. SADNESS is slightly potent, since the horizontal line runs a little way to the right of the point of origin. SADNESS is very passive, very inactive, since the figure recedes into the page a very great distance.

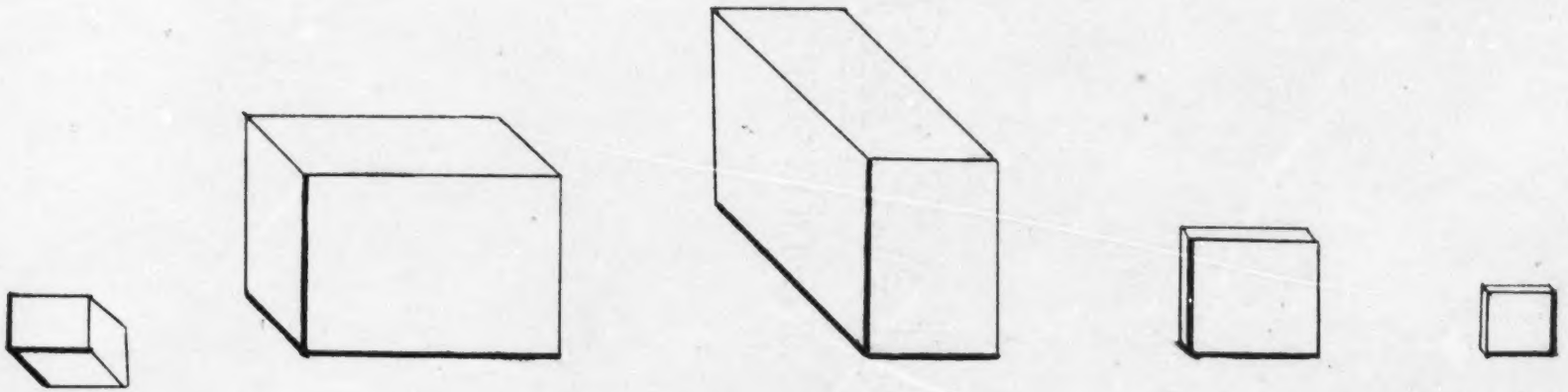
Figure 1
AGGRESSIVENESS



MEXICAN SPANISH	JAPANESE	GERMAN	AMERICAN ENGLISH	IRANIAN FARSI
E -2.1	E -0.5	E -1.9	E 0.1	E -2.7
P 0.1	P 1.5	P 0.7	P 1.2	P -0.6
A -0.2	A 1.6	A 2.0	A 1.6	A -0.4

There are seventeen significant differences reflected in the above figure. Americans are the only ones who see aggressiveness favorably, Iranians are the only ones who regard it as impotent, and Mexicans and Iranians are the only ones who think it is inactive. All the other differences are matters of relative degree.

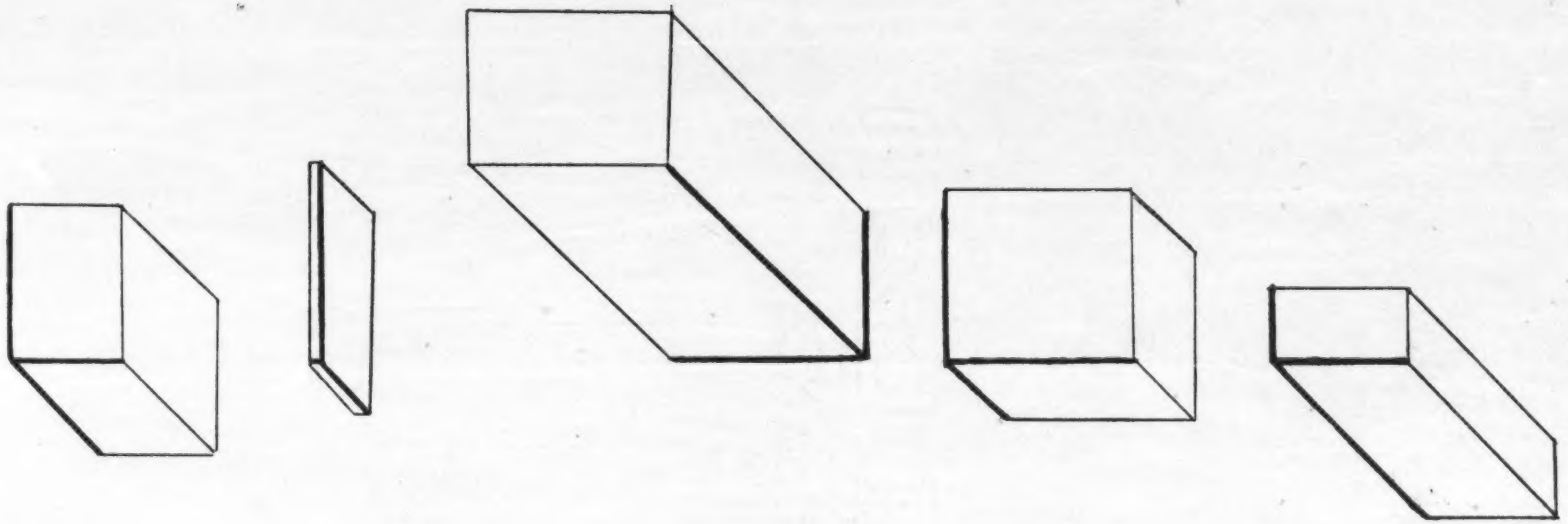
Figure 2
TRUST



MEXICAN SPANISH	JAPANESE	GERMAN	AMERICAN ENGLISH	IRANIAN FARSI
E 0.4	E 1.3	E 1.4	E 0.8	E 0.4
P 0.6	P 1.8	P 0.9	P 0.9	P -0.4
A 0.3	A -0.6	A -1.8	A -0.1	A 0.0

There are sixteen significant pairwise differences reflected in the above figure. They are principally differences of degree. Still, the Iranians are the only group to regard TRUST as impotent and the Mexicans the only ones to see it as active. Germans differ from all others in the extent to which they regard it as inactive while Japanese differ from all others in the degree of powerfulness they attribute to it.

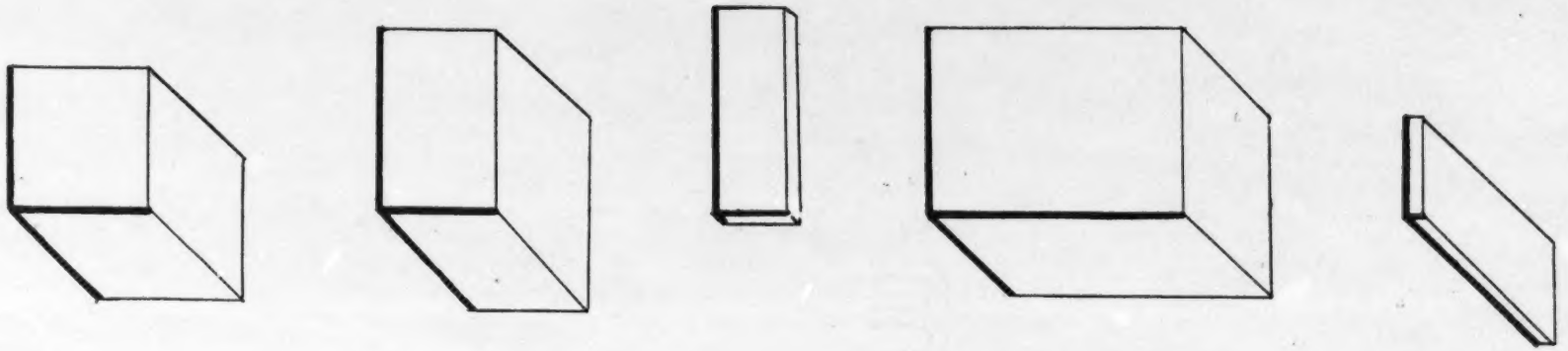
Figure 3
ROMANCE



MEXICAN SPANISH	JAPANESE	GERMAN	AMERICAN ENGLISH	IRANIAN FARSI
E 1.1	E 1.4	E 1.1	E 1.2	E 0.5
P 0.8	P -0.1	P -1.4	P 1.3	P 0.9
A 0.9	A 0.5	A -2.0	A 0.6	A 1.6

There are fourteen significant pairwise differences in the above figure. Only one of them occurs on the evaluative dimension where Japanese and Iranians differ in the extent of the concept's goodness. Germans and Americans are poles apart in assessment of its potency and activity. On the latter dimension Germans differ from all the other cultures.

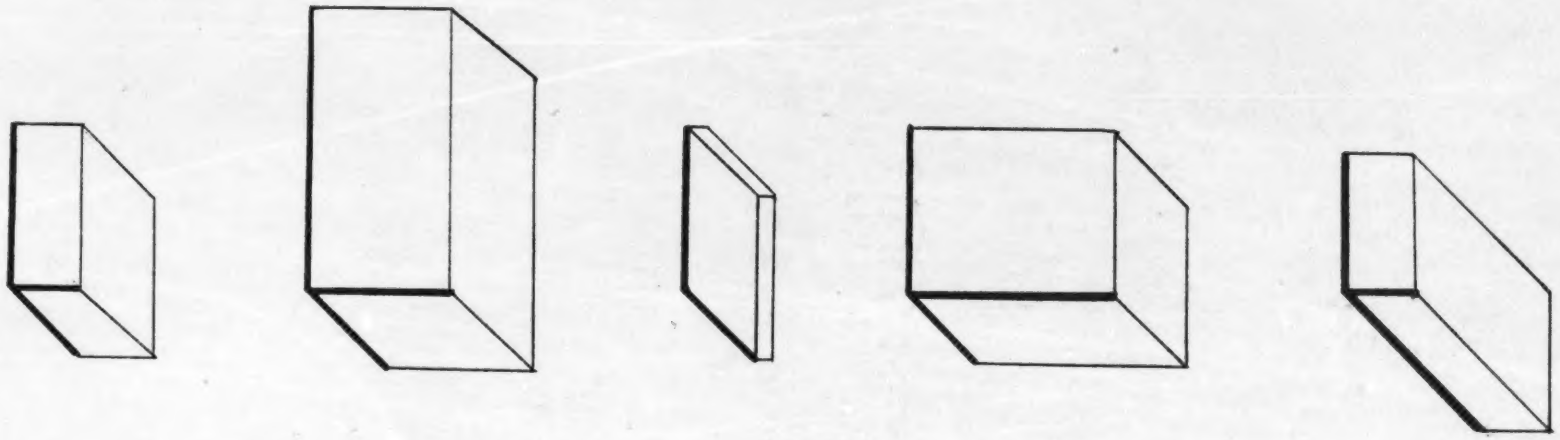
Figure 4
LOVE



MEXICAN SPANISH		JAPANESE		GERMAN		AMERICAN ENGLISH		IRANIAN FARSI	
E	1.0	E	1.3	E	1.5	E	1.3	E	0.7
P	1.0	P	0.8	P	0.5	P	1.8	P	1.3
A	0.7	A	0.9	A	0.1	A	0.8	A	1.3

There are only three significant pairwise differences in the above figure. Americans regard love as stronger than other groups, especially the Japanese and Germans. Iranians think of it as more active than most, especially the Germans.

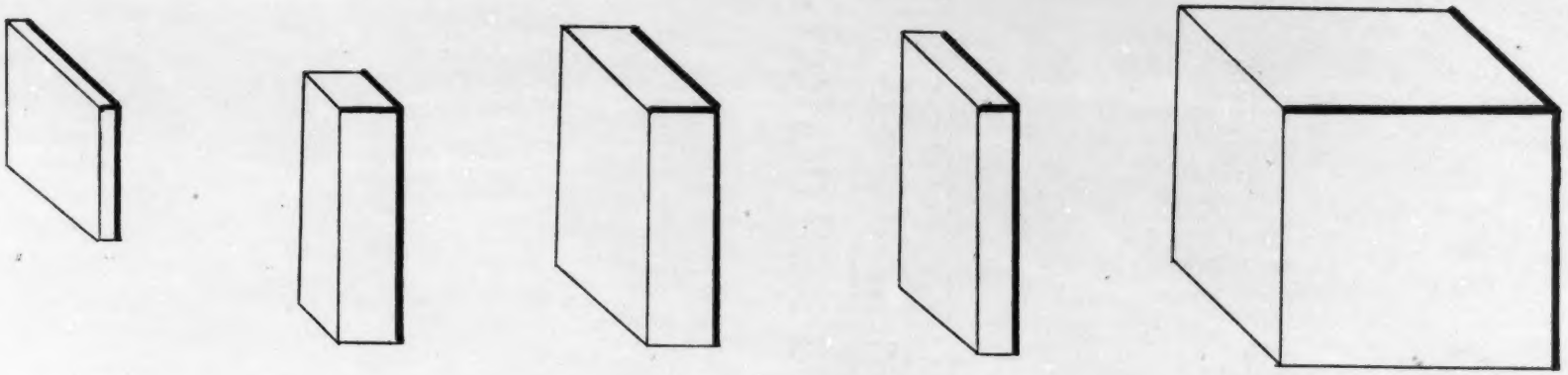
Figure 5
HAPPINESS



MEXICAN SPANISH	JAPANESE	GERMAN	AMERICAN ENGLISH	IRANIAN FARSI
E 1.2	E 2.0	E 1.2	E 1.2	E 1.0
P 0.5	P 0.1	P 0.0	P 1.2	P 0.5
A 0.7	A 0.8	A 0.5	A 0.7	A 1.5

There are only four significant pairwise differences in the above figure. Americans regard happiness as more powerful than most while Iranians see it as more active.

Figure 6
SHAME



MEXICAN SPANISH	JAPANESE	GERMAN	AMERICAN ENGLISH	IRANIAN FARSI
E -1.0	E -1.7	E -1.5	E -1.8	E -1.8
P -0.1	P -0.4	P -0.5	P -0.3	P -2.0
A -0.8	A -0.3	A -0.8	A -0.8	A -1.1

There are only four significant pairwise differences in the above figure. All of them result from the Iranians regarding the concept very impotent while the rest of the cultures see it as only slightly so.

FOOTNOTES

[1]Charles E. Osgood, William H. May, and Murray S. Miron, Cross-cultural Universals of Affective Meaning (Urbana, Illinois: University of Illinois Press, 1975).

[2]Osgood, pp. 208, 227-28.

[3]Osgood, pp. 228-29.

[4]Charles E. Osgood, "Interpersonal Verbs and Interpersonal Behavior," Studies in Thought and Language, ed. J. L. Cowan (Tucson: University of Arizona Press, 1970); George A. Miller and Philip N. Johnson-Laird, Language and Perception (Cambridge, Massachusetts: Harvard University Press, 1976).

[5]Harry C. Triandis, The Analysis of Subjective Culture (New York: Wiley Intersciance, 1972), 347 ff.